Proposed Thermal Power Plant -Sampur

Emission Standards for Thermal Power Plant

Parameter	Local	IFC	Remarks
SO_2	850 mg/Nm3		Can be controlled by fuel quality
NOx	650 mg/Nm3		
PM	150 mg/Nm3		
Opacity	15%		

Generation of Air Pollutants

- SOX
- Nox
- PM (Fly ash and Bottom Ash)
- CO
- CO2
- Mercury

Mitigation Measure

1. Fly Ash mitigation

Use of Electro precipitator will be reduced up to 100mg/Nm3/ Green Belt

2.SOX

Sea Water flue gas Desulfurization system

3.Nox

Low NOX burners

Possible impacts from bottom ash due to absence of solid environmental friendly disposal solution

Comply with air emission to relevant standards

- According to the given models emissions will be impacted to the ambient air quality.
- Wind pattern is dominant to the land side
- So more stringent standards should be applied
- To establish Online air quality monitoring system and mitigation method to heavy metal trap is recommended .

Violation to ambient air quality

- Storage/ transportation/handling/loading unloading of ash should be in proper way and concrete solution for final disposal should be their.
- No proposal completely mentioned the system.

Major Waste

- Bottom ash
- Fly ash
- Domestic solid waste
- Sludge from ETP

Fly ash/Bottom ash Treatment

- Fly ash
  - Electro precipitator
- Bottom ash
  - No Final decision

Disposal not acceptable

Best practice for ash

- Use as a raw martial for another product/ cement production
- Other by product proposed in the report inline with power plant
- Researches needed in this regard

Natural Environment

- Sensitive bay environment and Marian environment and terrestrial may be effects there but cannot be recognized dueto lack of baseline data and less researches carried out yet.
- Coral reef

Impacts

- Depletion of biodiversity due to clearing of land discharge of thermal water and fly ash emissions
- Effect on aquatic environment (sea bed breeding grounds coral reef) discharges and extraction

Water

- No any industrial specific standards for coal power plants But it based with receiving Environment (Marine Coastal Standards)
- Thermal Pollution From Cooling water/Domestic wastewater/ Processing water/chemical contaminations from from laboratory discharges
- S content from FGD Plant
- High Saline water from desalination plant

Standards

- Yes. comply with relevant standards (45C)
- Temperature profile in 500m each up to 2km from discharging point In vertically and horizontal direction
- Biological monitoring using sensitive species

Social Impacts

- Air pollution
- Positive impacts like infrastructure development and employment opportunities
- Effects to fishermen due to loss of habitats
- Development of Tourism hub not will be tally with this industrial development

Recommendation

- Other separate 2 EIAs influential to the final decision of the EIA. Therefore all the decisions should be stream lined.
- Water extraction for thermal purpose is high. This will effect to the biodiversity of the Bay and there should be a system to extract water with free of aquatic lives. So propose to recycled.
- Cooling water proposed to recycled or to use for other heat recovery option.

Recommendation..

- The location is critical for such industrial activity due to sensitive marine Environment. Therefore need to ensure to apply best available practices.
- Solid solution for fly ash and bottom ash disposal should be in place before installing the plant
- Storage of Bottom ash should be in manner to avoid spreading and with a shelter.
- Disposal method of Sludge from ETPs should be available

- Recommended to have more research for data collection on social and biological impacts
- Safety manager / Safety measures/
- SFC standards for Accident Prevention
- Catalyst to tap heavy metals in coal

RECOMENDATIONS

- The developer mostly used secondary data in preparing EIA. Using of primary data on environmental impacts assessment should be applied.